FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION

(Please fill in the highlighted areas)
all sections (IA, IB, IC, etc.) must be addressed or the application will be considered invalid

I. APPLICANT INFORMATION

A. Applicant Name: Park Branch Canal

B. Mailing Address: PO Box 1184

C. City: Livingston State: MT Zip: 59047

Telephone: (406) 222-0221 E-mail: daryl@depuyspringcreek.com

D. Contact Person: Daryl Smith

Address if different from Applicant:

City: State: Zip:

Telephone: E-mail:

E. Landowner and/or Lessee Name (if other than Applicant): Daryl Smith

Mailing Address:

City: State: Zip:

Telephone: E-mail:

II. PROJECT INFORMATION*

A. Project Name: Park Branch Canal Irrigation Efficiency Monitoring Project

River, stream, or lake: Park Branch Canal – Yellowstone River

Location: Township: 03S Range: 09E Section: 14
Latitude: 45.411742 Longitude: 110.695393 *within project (decimal degrees)*

County: Park

B. Purpose of Project:

To install water measuring systems on several reaches of the canals to measure flow rate and water use.

C. Brief Project Description:

Park Branch and Paradise canals in Park County, MT are planning on installing two water measuring systems along a stretch of their canals to measure water flow rates throughout the year and develop better water management practices and based on results. Park Branch Canal has already purchased and installed a third flow monitor near the head of the canal and will be getting baseline data in the near future. These are meant to replace existing, obsolete flow monitors whose software is out-of-date and unusable. The measurement systems are SonTek-IQ's and are used to measure water levels and conduct internal flow caluclations for both instantaneous discharge and total volume. The grant budget covers the purchase and installation of two additional flow monitors - one along the lower stretch of the Park Branch Canal and one on the Paradise Canal that branches off from the Park Branch.

The irrigation district and canal users know that they have not been using their full allotment of water as justified by their water rights, but do not have systems in place to accurately measure how much is being used throughout the year. Landowners who rely on these two canals want to be able to show how much water is flowing down the canal at any given time and show how their use affects water levels going down the canal after irrigation, evaporation, and other external forces act on the resource. The installation of modern, accurate water measuring systems is important to develop baseline data about water use and consumption along their canal, which can be used to improve efficiency and allow them to document changes to the system over time.

In light of the Yellowstone River closure that occurred in Autumn 2016 in response to a parasite that affects trout and whitefish populations, irrigators are naturally defensive and looking into ways to better manage their irrigation systems and provide water use and efficiency data. As development continues in Paradise Valley along the Yellowstone River corridor, there is more demand on the river, which comes with additional stressors on the resource. The canal users realize that irrigation and agriculture have been scrutinized regarding use of water for irrigation and want to show that their use is within the legal limits as set forth by their water rights and have verifiable evidence about flow rates and volume of water throughout their canal, from top to bottom. If we can gather hard evidence about trends in flow rate and volume, we might be able to alter management to reduce stresses on the ecosystem.

D. Length of stream or size of lake that will be treated: 30 miles total for the canals

E. Project Budget:

Grant Request (Dollars): $ 20526

Contribution by Applicant (Dollars): $ 800 In-kind $ 800

(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): $ _____ In-kind $ _____

(attach verification - See page 2 budget template)

Total Project Cost: $ 21326

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support and fish biologist support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Yellowstone Cutthroat Trout habitat is in the area and will be benefitted through better water management nearby; whitefish, dace, suckers, etc. are also present in the area.

B. How will the project protect or enhance wild fish habitat?:

By being able to accurately and efficiently measure the amount of water flowing down the Canal and used by irrigators, land managers and landowners will be able to better regulate the amount of water taken from the Yellowstone River and more accurately show consumption. This will allow irrigators to make better water use decisions that will leave more water in the river and reduce stressors on fish via water temperature and flow rate.

C. Will the project improve fish populations and/or fishing? To what extent?:

Indirectly, this project will improve fish populations by ensuring they only use their allotted the amount of water that the landowners who use the canal will need to consume. This leaves additional water in the river, which will improve habitat through colder temperatures, higher water flows, and fewer stressors.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

This project will indirectly benefit public fishing through better monitoring of water levels, allowing greater access on the river.

E. The project agreement includes a 20-year maintenance commitment. Please discuss your ability to meet this commitment.

The Park Branch Canal district has a board that is very interested in the long-term maintenance of the water measurement systems. They have the resources available to keep the systems maintained and will do so to ensure they remain accurate and functioning.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

A lack of proper water quantity monitoring may mean that the canal association is using more water than they are allotted, which would result in less water in the rivers than is expected.

G. What public benefits will be realized from this project?:

Fisheries will be benefitted and there is a possibility that better monitoring will reduce the amount of water they use, both of which help the public.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No, the Canal is on private land and is managed by said landowners.

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No.

J. Is this project associated with the reclamation of past mining activity?:

No.

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: Dylan Graves Date: 5/30/2017

Sponsor (if applicable): Dylan Graves, Park Conservation District, 5242 Highway 89 S, Livingston, MT 59047

***Highlighted boxes will automatically expand.**

Mail To: **Montana Fish, Wildlife & Parks**
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701

E-mail To: **Michelle McGree**
mmcgree@mt.gov
(electronic submissions MUST be signed)

Incomplete or late applications will be rejected and returned to applicant.
Applications may be rejected if this form is modified.

*****Applications may be submitted at anytime, but must be signed and received by the Future Fisheries Program Officer in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

Park Branch Canal irrigation efficiency

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel* **								
Survey				$ -				$ -
Design				$ -				$ -
Engineering				$ -				$ -
Permitting				$ -				$ -
Oversight				$ -				$ -
				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Travel								
Mileage				$ -				$ -
Per diem				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Construction Materials** **								
SonTek Flow Monitors	2	monitors	$5660	$ $11320	$11320			$ $11320
Power and Enclosure	2	power panels	$3653	$ $7306	$7306			$ $7306
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Equipment and Labor								
Installation Labor	8	hours	$40	$ $320		$320		$ $320
Nuts, Bolts, concrete, etc.	2	installations	$200	$ $400			$400	$ $400
8' x 2" Galvanized Pipe	2	sections	$40	$ $80			$80	$ $80
				$ -				$ -
				$ -				$ -
				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Mobilization								
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
			TOTALS	$ $21326	$ $21326	$ $320	$ $480	$ $21326

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

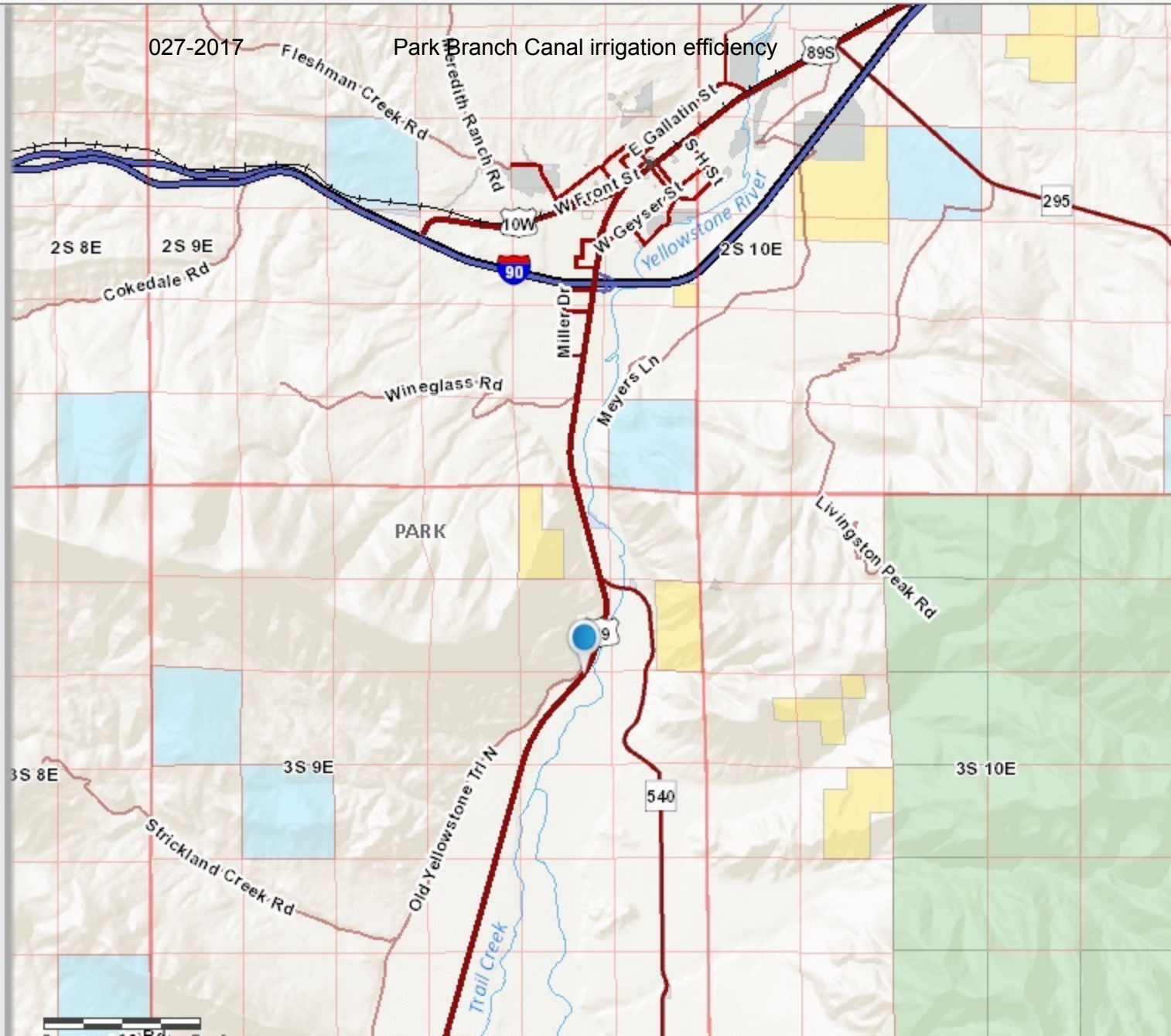
Reminder: Government salaries cannot be used as in-kind match

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications must include a minimum of two competitive bids for the cost of undertaking the project.

****The Review Panel recommends a maximum fencing cost of $1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Secured? (Y/N)
Park Branch Canal Association	$ -	$ $480	$ $480	Yes
Park Branch Canal Association	$ $320	$ -	$ $320	Yes
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ 320	$ 480	$ 800	


027-2017
Park Branch Canal irrigation efficiency
Fleshman Creek Rd
Meredith Ranch Rd
E Gallatin St
W Front St
W Geyser St
S H St
89S
295
10W
90
2S 8E
2S 9E
2S 10E
Cokedale Rd
Miller Dr
Yellowstone River
Meyers Ln
Wineglass Rd
PARK
Livingston Peak Rd
9
3S 8E
3S 9E
3S 10E
540
Strickland Creek Rd
Old Yellowstone Trl N
Trail Creek

xylem
Let's Solve Water

Quote Number: B140989
Quote Date: 1/24/2017
Quote Expiration Date: 2/24/2017

Quotation Prepared For:
Daryl Smith
Park Branch Canal
PO Box 1184
Livingston, MT 59047
(406) 222-0221
daryl@depuyspringcreek.com

Submitted By:
Randy Hadland
(360) 915-7331
rhadland@ysi.com

Quote Number B141021

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Proposal Summary

IQ Flow Monitor

#	Product	Description	List Price	Qty	Ext. Price
1	SON-IQS	SonTek-IQ Standard. Low profile, five beam up-looking real-time acoustic Doppler current meter/flowmeter (3.0-MHz) with a measurement range of 1.5-m. Features the SmartPulseHD feature, dynamic measurement cell, vertical acoustic beam and pressure sensor for water level measurement, internal flow calculations for both instantaneous discharge as well as total volume, temperature sensor, tilt sensor, RS232, SDI-12, Modbus interface and 4 GB recorder in a low-profile (2.9cm) urethane pressure case (30m max. depth). System includes mounting brackets, USB-RS232 serial adaptor, tool kit, dummy plug kit, power supply and memory drive with SonTek-IQ software and technical documentation.	$5,300.00	1	$5,300.00
2	36-0012-010	10-m power and RS232/SDI-12/Modbus communications cable, compatible with the SonTek-IQ Flow Display, 5-pin male dry-pluggable to terminal block	$260.00	1	$260.00

Subtotal: $5,560.00

Power and Enclosure

#	Product	Description	List Price	Qty	Ext. Price
1	SON-FD	Flow Display, SonTek	$1,060.00	1	$1,060.00
2	TK-1	Fiberglass Enclosure (14-in.x10-in.x6-in.) for Storm3 (Storm3, -G, -3G, -1X, -Gi, -3Gi) with 12VDC 18 Ahr Battery and Mounting Hardware	$2,188.00	1	$2,188.00
3	200440	20 Watt Solar Panel Only, SX-20L - Glass construction - 19 1/2-in X 17 1/2-in - Requires 300590025 mounting bracket	$185.00	1	$185.00
4	200575	Solar Regulator	$95.00	1	$95.00
5	300590025	Mount for 20 Watt Solar Panels	$125.00	1	$125.00

Subtotal: $3,653.00

xylem
Let's Solve Water

Quote Number B141021

Shipping

#	Product	Description	List Price	Qty	Ext. Price
1	Est Ship	Estimated ground shipping and insurance.	$100.00	1	$100.00

Subtotal: $100.00

Total List Price	$9,313.00
Total Net Price	$9,313.00
Subtotal	$9,313.00
Grand Total	$9,313.00
Terms	Net 30
FOB	Origin

This pricing is Proprietary and Confidential information. Neither this document nor its contents may be revealed or disclosed to unauthorized persons or sent outside the institution without prior permission from YSI Inc.

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Quote Number B141021

Ordering Instructions:

Credit Card Reference This Quote Number	Call: (858) 546-8327
Purchase Order Include a Copy of Quote with PO	Email: orders@sontek.com Fax: 858-546-8150 Mail: SonTek Attn: Order Entry 9940 Summers Ridge Road San Diego, CA 92121

- All purchase orders should be accompanied with a copy of this quote or clearly reference the quotation number.
- All purchase orders should have a complete billing and complete shipping address on the purchase order.
- For order acknowledgement please provide email address to send updates on order. Email Address:_____
- Taxes and Tariffs are additional and are not included in the above pricing unless explicitly stated as a line item.
- Shipping charges are additional and are not included in the above pricing unless explicitly stated as a line item.
- Tax Exempt customers must include their Tax ID on their Purchase Order. Proof of Tax Exempt status may be required.
- Terms & Conditions: www.xyleminc.com/en-us/Pages/terms-conditions-of-sale.aspx
- For warranty coverage, see product documentation.

Business Information:

YSI Incorporated
Tax Identification #: 31-0526418
DUNS #: 004246716

Remit to Address for Orders:
Checks (Drawn on US Banks Only)
YSI Incorporated
PO Box 640373
Cincinnati OH 45264-0373

ACH (With ADDENDA Record)
US Bank NA
Cincinnati, OH 45202
Acct# 8506321; ABA# 042000013